

EXHIBIT 2

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1	Q. Okay. Yeah. And feel free, you know, to	07:28:33	1 aspect of your work?
2	answer any of the questions, if you need to refer to	07:28:35	2 A. Yes.
3	your report, obviously, you can do that. You are	07:28:37	3 Q. What do you mean by "reasonable and feasible
4	saying you have that on your other monitor, right?	07:28:40	4 methods?"
5	A. Yes.	07:28:43	5 A. Analytically sound from reliable data that
6	MR. PRUITT: And -- and, Jerry, you are	07:28:45	6 are -- where the data are discernable and available,
7	good? You have everything?	07:28:46	7 where there are supportable basis for those methods.
8	MR. PATTERSON: I'm good. Thank you.	07:28:50	8 Those would be the principles I think -- I would
9	MR. PRUITT: Okay. All right.	07:28:52	9 consider to underlie the words "reasonable" and
10	BY MR. PRUITT:	07:28:53	10 "feasible."
11	Q. All right, Mr. Stockton. Is Exhibit 1	07:28:53	11 Q. Is it sort of like a level of confidence in
12	the expert report that you prepared for this case?	07:28:57	12 your conclusions? Is that fair?
13	A. Yes. I sent along supporting materials	07:29:15	13 A. Except the level of confidence sometimes has
14	along with it which I would incorporate into the	07:29:19	14 the reserved meaning in statistics. If you use that
15	file, and then there is a conceptually subsumed	07:29:22	15 in a plain language sense, level of confidence as an
16	subpoena meant, but "yes" is generally the answer.	07:29:30	16 analyst or an economist, I think that's a fair
17	Q. When you say it's supporting materials, you	07:29:34	17 term.
18	mean the tabs that are at the back of your report?	07:29:38	18 Q. Well, I guess sort of what I'm asking, is it
19	A. I also sent underlying data, some	07:29:41	19 akin to a level of confidence to a statistician
20	intermediate or for perhaps confirmatory work	07:29:47	20 where you can assign it like a percentage or any --
21	product along with the report.	07:29:52	21 is that how you are thinking of those terms?
22	Q. Okay. And are all of those files listed in	07:29:54	22 A. No. It's more holistic than -- than simply
23	Tab 24 of Exhibit 1?	07:30:00	23 the -- what could be assigned as a -- as a
24	A. Tab 24 is just reliance material. We also	07:30:05	24 confidence interval.
25	sent along work product from the reliance material	07:30:09	25 Q. So like to a layperson? Is that what you
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1	which I would not have listed. Those would have	07:30:14	1 mean?
2	been explicitly contained in that production.	07:30:17	2 A. I could form -- by way of contrast, I could
3	Q. You are talking about your worksheets for	07:30:21	3 form a confidence interval. If you gave me a data
4	your calculation, right?	07:30:24	4 set and I just had numbers, I could form a
5	A. Yes.	07:30:25	5 confidence interval. Whether or not I understood
6	Q. Okay. And so let me direct you to	07:30:27	6 where the numbers came from what they meant or what
7	Paragraph 3 in your report: Let me know when you	07:30:48	7 their context was.
8	are there.	07:30:54	8 Here I consider it more about the process,
9	A. Okay. I'm there.	07:30:55	9 understanding data are they the right data, and then
10	Q. So this describes what you were asked to	07:31:03	10 again, the reliability of the numbers. So I
11	opine on; is that right?	07:31:06	11 consider reasonable and feasible to be broader than
12	A. It does, and then I was asked another	07:31:12	12 than simply the -- the notion of a confidence
13	discrete question regarding allocation of	07:31:17	13 interval.
14	overpayment at point of purchase, but along with	07:31:22	14 Q. Okay. But could you assign a confidence
15	that, it does.	07:31:25	15 interval to your conclusions?
16	Q. Okay. Fair enough. It says here in 3(i)	07:31:26	16 A. It would be possible to do that. Yes.
17	that Counsel for Plaintiffs engaged Fontana, which	07:31:29	17 Q. But you haven't done that?
18	is your firm, "to evaluate and appropriate to form	07:31:38	18 A. I have not done a -- I have not done a
19	opinions regarding following: Whether reasonable	07:31:42	19 confidence interval. That's -- I haven't assigned a
20	and feasible methods exist to determine typical	07:31:46	20 confidence interval. That's correct.
21	out-of-pocket expenses for consumers who paid for	07:31:51	21 Q. To any aspect of your report, right?
22	repairs following catastrophic CP4 failures."	07:31:54	22 A. No. No. I did extensive confirmatory work
23	Did I read that correctly?	07:32:01	23 about the reliability of the averages that I found,
24	A. Yes.	07:32:02	24 but there is not a formal confidence interval
25	Q. Okay. And that's a fair summary of that	07:32:03	25 assigned that I -- that I can remember.

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<p>1 Q. Did you do anything to determine the 07:35:14</p> <p>2 statistical uncertainty of any of your estimates in 07:35:17</p> <p>3 your report? 07:35:20</p> <p>4 A. Yes. 07:35:23</p> <p>5 Q. What did you do? 07:35:25</p> <p>6 A. First of all, excluded outliers, the -- the 07:35:27</p> <p>7 clearest example of that would be the, I guess, what 07:35:35</p> <p>8 I would call the narrowing ranges exhibits, which -- 07:35:42</p> <p>9 which reports a variety of average repair costs 07:35:46</p> <p>10 using 50 percent and then expanding out to all of 07:35:52</p> <p>11 the data within the interquartile range, and there 07:35:57</p> <p>12 is essentially no movement on that. So that was -- 07:36:00</p> <p>13 that gave me a high degree of confidence regarding 07:36:07</p> <p>14 the appropriateness and the lack or the stability of 07:36:10</p> <p>15 the findings shown in the report. 07:36:16</p> <p>16 Q. So, I guess, what I'm asking is a little bit 07:36:17</p> <p>17 different. Did you quantify the statistical 07:36:20</p> <p>18 uncertainty of any of your estimates in the 07:36:26</p> <p>19 report? 07:36:29</p> <p>20 A. I think I answered that with my last 07:36:38</p> <p>21 question. I showed that that the averages were 07:36:40</p> <p>22 stable not sensitive to decisions regarding which 07:36:46</p> <p>23 observations which records to include, which 07:36:55</p> <p>24 constituents in the data sets. 07:36:57</p> <p>25 As far as a formal confidence interval, I 07:37:00</p>	<p>1 Paragraph 3, 2, little 2, it says you were engaged 07:38:21</p> <p>2 to form opinions regarding whether it is possible to 07:38:29</p> <p>3 estimate aggregate out-of-pocket expenditures by 07:38:33</p> <p>4 consumers who paid for repairs following 07:38:38</p> <p>5 catastrophic CP4 failures; is that correct? 07:38:41</p> <p>6 A. Yes. 07:38:44</p> <p>7 Q. So you say "possible" here instead of 07:38:44</p> <p>8 "reasonable" and "feasible," right? 07:38:46</p> <p>9 A. Yes. 07:38:49</p> <p>10 Q. Are you making a distinction there? 07:38:50</p> <p>11 A. No. 07:38:53</p> <p>12 Q. Do you see that as meaning the same thing? 07:38:57</p> <p>13 "Reasonable" and "feasible" versus "possible"? 07:39:05</p> <p>14 A. Yeah. I can -- I can see the written 07:39:20</p> <p>15 "possible" sounds more inclusive than "reasonable" 07:39:24</p> <p>16 and "feasible." I don't think of those -- I don't 07:39:28</p> <p>17 think of the answers that I gave as different. 07:39:31</p> <p>18 Q. Okay. So when -- I just want to be clear. 07:39:36</p> <p>19 When you wrote down whether it is "possible," you 07:39:39</p> <p>20 didn't mean to give it any different meaning than 07:39:42</p> <p>21 whether it is "reasonable" and "feasible," right? 07:39:45</p> <p>22 A. I did not mean to. 07:39:48</p> <p>23 Q. Okay. And do you have any more or less 07:39:49</p> <p>24 confidence in your aggregate estimate as opposed to 07:39:57</p> <p>25 your typical estimate? 07:40:00</p>
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<p>1 did not do that, but as I told you in a prior 07:37:03</p> <p>2 answer, there is extensive work to -- to test the 07:37:07</p> <p>3 stability of the findings. 07:37:12</p> <p>4 Q. Right. But I'm just trying to get at, you 07:37:15</p> <p>5 know, when you quantify statistical uncertainty, you 07:37:18</p> <p>6 can express that as a number, right? 07:37:22</p> <p>7 A. You can form a confidence interval. I think 07:37:30</p> <p>8 that's what you are asking. 07:37:34</p> <p>9 Q. And that's expressed as a number? 07:37:35</p> <p>10 A. It's expressed as a range. 07:37:37</p> <p>11 Q. And -- yeah. Like it's a numerical range on 07:37:40</p> <p>12 top of another number, right? 07:37:42</p> <p>13 A. It would be around another number, but 07:37:44</p> <p>14 that's generally true. 07:37:47</p> <p>15 Q. And do you have any of those numerical 07:37:49</p> <p>16 ranges in your report anywhere for your estimates? 07:37:52</p> <p>17 A. I don't think so. 07:37:55</p> <p>18 Q. Could you do that work? Would you be 07:37:59</p> <p>19 qualified is what -- is what I'm asking? 07:38:02</p> <p>20 A. Yes. That's not difficult -- that's not a 07:38:04</p> <p>21 difficult thing to do. 07:38:07</p> <p>22 Q. Okay. But you haven't done that to date, 07:38:09</p> <p>23 right? 07:38:11</p> <p>24 A. I have not. 07:38:12</p> <p>25 Q. Okay. Looking back at your report, 07:38:13</p>	<p>1 A. I don't have less -- less confidence. I 07:40:05</p> <p>2 note that I -- in developing the aggregate 07:40:11</p> <p>3 estimates, I note that I rely on another expert's 07:40:15</p> <p>4 work determining the universe of repairs. I'm 07:40:19</p> <p>5 comfortable with that reliance, but there is a 07:40:24</p> <p>6 little distinction between those two. 07:40:27</p> <p>7 Q. What do you mean "a little distinction 07:40:29</p> <p>8 between those two"? 07:40:31</p> <p>9 A. I did the work to -- to identify the typical 07:40:33</p> <p>10 out-of-pocket repair costs, at least one element of 07:40:41</p> <p>11 turning those typical repair costs into an aggregate 07:40:46</p> <p>12 calculation, I relied on another expert. 07:40:50</p> <p>13 Q. Got it. And so what I'm asking is, at the 07:40:54</p> <p>14 end of the day, you know, you have your typical 07:40:57</p> <p>15 estimate, you have got your aggregate estimate, do 07:40:59</p> <p>16 you have any more or less confidence in one as 07:41:01</p> <p>17 opposed to the other? 07:41:04</p> <p>18 A. No. 07:41:05</p> <p>19 Q. Okay. They are perfectly equal in your 07:41:06</p> <p>20 mind? 07:41:19</p> <p>21 A. I don't have an affirmative different 07:41:20</p> <p>22 feeling about confidence in one versus the other. 07:41:22</p> <p>23 That does not mean that they are perfectly equal, 07:41:25</p> <p>24 because one is a -- one is based more on reliance so 07:41:28</p> <p>25 I came about it a different way, but I -- I have -- 07:41:32</p>

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<p>1 vehicle there, but I don't ever move to Rhode 08:19:51</p> <p>2 Island. I live in West Virginia, and I have -- I 08:19:55</p> <p>3 have always lived in West Virginia. Is your model 08:19:58</p> <p>4 proposing that I be paid \$9,087 in damages? 08:20:03</p> <p>5 A. That depends on what happens with the class 08:20:13</p> <p>6 definition. There are the tools available to do 08:20:17</p> <p>7 that, if that's what the Court decides is 08:20:21</p> <p>8 appropriate, but I'm not -- when you say 08:20:25</p> <p>9 "proposing," again, that gets beyond what my role 08:20:28</p> <p>10 is. I think that has to do with eligibility and 08:20:31</p> <p>11 class certification issues. 08:20:35</p> <p>12 Q. Okay. So I just -- I just want to 08:20:37</p> <p>13 understand "yes" or "no," you are not proposing at 08:20:40</p> <p>14 this stage that the amount of damages a particular 08:20:43</p> <p>15 person would get is the amount in Tab 9 of your 08:20:47</p> <p>16 report, correct? 08:20:53</p> <p>17 A. That's right. I view this report as giving 08:20:55</p> <p>18 tools, substantiation, explanation of evidence to be 08:20:58</p> <p>19 applied as -- as appropriate within the context of 08:21:05</p> <p>20 legal decisions and class certification decisions. 08:21:09</p> <p>21 Q. And -- 08:21:13</p> <p>22 MR. PATTERSON: Andrew, when you get to a 08:21:16</p> <p>23 convenient spot, can we take a break. 08:21:18</p> <p>24 MR. PRUITT: Okay. 08:21:21</p> <p>25 MR. PATTERSON: Whenever it's convenient for 08:21:23</p>	<p>1 08:22:52</p> <p>2 BY MR. PRUITT: 08:22:52</p> <p>3 Q. Okay. So does that -- just because we need 08:22:52</p> <p>4 to know -- we need to have clarity on what your 08:22:59</p> <p>5 opinion is and what your opinion isn't. You are not 08:23:02</p> <p>6 proposing an amount to be paid to anyone in terms of 08:23:05</p> <p>7 legal damages, right? 08:23:09</p> <p>8 MR. PATTERSON: Object to form. 08:23:11</p> <p>9 A. That's -- that's right. I think there is a 08:23:12</p> <p>10 layer of the Court's decisions and class 08:23:16</p> <p>11 certification definitions in between what I have 08:23:22</p> <p>12 done and when you would get to that stuff. 08:23:25</p> <p>13 BY MR. PRUITT: 08:23:28</p> <p>14 Q. And so then you don't intend to get to that 08:23:28</p> <p>15 point in the future in terms of proposing a number 08:23:30</p> <p>16 in terms of damages? 08:23:33</p> <p>17 A. I'm -- there could be a court instruction 08:23:37</p> <p>18 where I would apply that. I don't think that -- I 08:23:44</p> <p>19 don't envision a way that I would be the one who 08:23:49</p> <p>20 came up with that instruction. 08:23:52</p> <p>21 MR. PRUITT: Okay. All right. Jerrod, we 08:23:54</p> <p>22 can do a break now if you want. 08:23:57</p> <p>23 MR. PATTERSON: Sure. 08:24:01</p> <p>24 MR. PRUITT: Okay. 5 or 10? What do you 08:24:02</p> <p>25 think. 08:24:03</p>
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<p>1 you. 08:21:25</p> <p>2 MR. PRUITT: Yeah. Yeah. Let me just make 08:21:25</p> <p>3 sure I sort of finish my thought here, but then we 08:21:26</p> <p>4 can probably do it within a few minutes or so, if 08:21:28</p> <p>5 that's all right. 08:21:30</p> <p>6 MR. PATTERSON: Sure. No problem. 08:21:31</p> <p>7 BY MR. PRUITT: 08:21:34</p> <p>8 Q. So, then, is -- are you saying there is not 08:21:34</p> <p>9 enough information available to you right now with 08:21:40</p> <p>10 respect to class certification to be able to propose 08:21:45</p> <p>11 how much any given person should be -- should 08:21:49</p> <p>12 receive in damages? 08:21:52</p> <p>13 MR. PATTERSON: Object to form. 08:21:55</p> <p>14 A. I don't think I would ever propose how much 08:22:04</p> <p>15 should be paid to an individual in damages, because 08:22:07</p> <p>16 once you use the word "damages," you have adopted 08:22:11</p> <p>17 the formality, which is in the Court's hands. 08:22:13</p> <p>18 Certainly, if the Court gave principles of the 08:22:19</p> <p>19 framework with which they wanted to use this 08:22:23</p> <p>20 information, I could apply that, but I don't know 08:22:26</p> <p>21 when I would step in and say -- say how these data 08:22:33</p> <p>22 would interact with eligibility. I don't have the 08:22:41</p> <p>23 information to do it, but I don't envision doing 08:22:45</p> <p>24 that unless I'm instructed what the Court's decision 08:22:47</p> <p>25 is. 08:22:51</p>	<p>1 MR. PATTERSON: Five for me. Ted? 08:24:04</p> <p>2 THE WITNESS: Five is fine. 08:24:06</p> <p>3 MR. PRUITT: Okay. So then let's say -- I 08:24:08</p> <p>4 have 10:24 -- or 24 past the hour. Maybe we will 08:24:11</p> <p>5 say 30 past the hour? 08:24:16</p> <p>6 MR. PATTERSON: Sure. 08:24:21</p> <p>7 THE WITNESS: Uh-huh. 08:24:22</p> <p>8 MR. PRUITT: Thanks. 08:24:22</p> <p>9 THE VIDEOGRAPHER: Going off the record at 08:24:23</p> <p>10 8:24 a.m. 08:24:25</p> <p>11 (Recess taken.) 08:24:30</p> <p>12 THE VIDEOGRAPHER: We are going back on the 08:30:58</p> <p>13 record at 8:30 a.m. 08:30:59</p> <p>14 BY MR. PRUITT: 08:31:04</p> <p>15 Q. Mr. Stockton, did you speak with anyone 08:31:04</p> <p>16 about your testimony during the break? 08:31:07</p> <p>17 A. No. 08:31:09</p> <p>18 Q. Did you speak with anyone at all? 08:31:11</p> <p>19 A. No. 08:31:13</p> <p>20 Q. So looking at -- I think we were looking 08:31:18</p> <p>21 at paragraph 14 in your report where you lay out 08:31:22</p> <p>22 your aggregate number that you calculated, of 08:31:28</p> <p>23 \$187 million-plus. 08:31:33</p> <p>24 Are you there? 08:31:41</p> <p>25 A. Yes. 08:31:54</p>

<p style="text-align: right;">Page 50</p> <p>1 Q. So the -- your estimate of aggregate costs, 08:31:56</p> <p>2 is it -- should I understand that to be just your 08:32:02</p> <p>3 typical cost multiplied by the number of people who 08:32:06</p> <p>4 paid that? Is that fair? 08:32:10</p> <p>5 A. Yes. And just to be clear, and I'm sure you 08:32:11</p> <p>6 know this, probably get to it later, but I have got 08:32:14</p> <p>7 two potential credits that one might apply to that, 08:32:17</p> <p>8 but just to answer your question, separate from 08:32:21</p> <p>9 those credits, yes. You understand the aggregate 08:32:23</p> <p>10 cost correctly. 08:32:26</p> <p>11 Q. Yeah. At a simple level, that's -- that's 08:32:28</p> <p>12 what it's referring to, right? 08:32:30</p> <p>13 A. Yes. 08:32:32</p> <p>14 Q. Is it just that one additional input that 08:32:35</p> <p>15 you used to calculate the aggregate -- the number 08:32:38</p> <p>16 of -- the number of people, essentially? 08:32:42</p> <p>17 MR. PATTERSON: Object to form. 08:32:47</p> <p>18 A. At a high level, yes. I mean, you've seen 08:32:50</p> <p>19 also if it's a calculated state level subtotals, 08:32:54</p> <p>20 which would be more inputs, but they are the same. 08:32:59</p> <p>21 They are essentially the same input conceptually. 08:33:04</p> <p>22 BY MR. PRUITT: 08:33:10</p> <p>23 Q. Okay. So then if -- if your typical cost is 08:33:11</p> <p>24 wrong, then by definition, your aggregate cost is 08:33:15</p> <p>25 going to be wrong, too, right? 08:33:19</p>	<p style="text-align: right;">Page 52</p> <p>1 you put forward. Yes. 08:35:00</p> <p>2 A. I looked -- as I referred you to before, I 08:35:07</p> <p>3 looks at the stability of the average as -- which is 08:35:09</p> <p>4 using all the interquartile data versus the, what I 08:35:15</p> <p>5 will call the analysis records, being the middle 08:35:19</p> <p>6 50 percent, I calculated the state level data 08:35:20</p> <p>7 changing, the order of data selection. 08:35:28</p> <p>8 Also, there was the replacement data set 08:35:50</p> <p>9 that GM sent, so that changed the number of records. 08:35:53</p> <p>10 It looked like the typical number did not -- did not 08:35:57</p> <p>11 change much after with the new data set, so it 08:36:02</p> <p>12 suggests the model was robust in terms of filtering 08:36:06</p> <p>13 out the records, which -- which weren't useful. I 08:36:10</p> <p>14 may have done more, but those are the ones that come 08:36:14</p> <p>15 to mind. 08:36:17</p> <p>16 Q. But what I'm asking is, did you do any 08:36:17</p> <p>17 calculations in your report where you assumed an 08:36:21</p> <p>18 error exists in your methods or in your data and 08:36:23</p> <p>19 then determine how that changed the numbers you 08:36:27</p> <p>20 report at the end of the day? 08:36:32</p> <p>21 A. I didn't assume that I made errors. I 08:36:40</p> <p>22 wouldn't know what assumption to apply, but it's 08:36:43</p> <p>23 certainly -- certainly testable. I have tested 08:36:49</p> <p>24 different assumptions regarding which records go in, 08:36:53</p> <p>25 which order the state level data should be -- should 08:36:56</p>
<p style="text-align: right;">Page 51</p> <p>1 A. Yes. Well, it's one -- it's the aggregate 08:33:25</p> <p>2 cost is a function of the typical cost, so if an 08:33:34</p> <p>3 input needs to change, then the output would need to 08:33:34</p> <p>4 change. 08:33:41</p> <p>5 Q. So, mathematically, that has to be true, 08:33:42</p> <p>6 right? 08:33:45</p> <p>7 A. If it's a dynamic input, yes. 08:33:46</p> <p>8 Q. Okay. And if there is also an error in the 08:33:50</p> <p>9 number of people input, that would be -- that would 08:33:55</p> <p>10 compound the error in your aggregate estimate; is 08:34:01</p> <p>11 that fair? 08:34:07</p> <p>12 A. Well, the estimate is the obligation of 08:34:08</p> <p>13 simple mathematics as -- that we have talked about. 08:34:11</p> <p>14 In terms of compounding the error, I guess if I 08:34:14</p> <p>15 assume there is an error in the typical cost, and I 08:34:23</p> <p>16 assume that there is an error in the number of 08:34:26</p> <p>17 repairs, the error in the number of repairs could 08:34:32</p> <p>18 be -- could make the difference between the 08:34:36</p> <p>19 aggregate number and the true number smaller or 08:34:39</p> <p>20 larger depending on the directions of the errors. 08:34:42</p> <p>21 Q. Did you do any calculation like that as part 08:34:44</p> <p>22 of your work in this case? 08:34:47</p> <p>23 A. Assuming my calculations were wrong? 08:34:49</p> <p>24 Q. Assuming any errors in your calculations and 08:34:52</p> <p>25 then trying to quantify how that affects the numbers 08:34:54</p>	<p style="text-align: right;">Page 53</p> <p>1 be incorporated, so I have tested those, 08:37:02</p> <p>2 I haven't done a what-if scenario, what if 08:37:05</p> <p>3 the number is \$2,000. I looked at calculations of 08:37:09</p> <p>4 repair costs under warranty, which is sort of a 08:37:16</p> <p>5 conceptually low number. I could've done it on a 08:37:20</p> <p>6 TFP, if I was not going to have anything over the 08:37:23</p> <p>7 warranty -- TFPs, rather. It wasn't going to add 08:37:26</p> <p>8 anything over the warranty calculations. 08:37:32</p> <p>9 I started on the dealer survey and found, as 08:37:34</p> <p>10 I reported in the report, that there was some 08:37:39</p> <p>11 conditions that might not have been present, so I 08:37:43</p> <p>12 considered the possibility of overstating the 08:37:46</p> <p>13 estimates, drawing from the dealer survey with 08:37:49</p> <p>14 respect to the independent dealers. 08:37:52</p> <p>15 I -- I'm not concerned about that. I don't 08:37:56</p> <p>16 think there is -- that there is going to be anything 08:37:59</p> <p>17 material there, but I did put in a matrix that shows 08:38:00</p> <p>18 if, for example, there are lower labor rates that 08:38:04</p> <p>19 affect some records, I showed how much effect that 08:38:09</p> <p>20 would be. 08:38:10</p> <p>21 So it's several layers -- several layers I 08:38:12</p> <p>22 did tests akin to that, but in terms of picking a 08:38:16</p> <p>23 number saying, what if it's actually \$8,000 or 08:38:20</p> <p>24 \$2,000 or whatever, I didn't apply that, but that 08:38:25</p> <p>25 would be rightfully discernable based on the way 08:38:27</p>

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<p>1 calculations are done already. 08:38:32</p> <p>2 Q. So it's feasible and possible to do it, but 08:38:33</p> <p>3 that's just not something that's in your report 08:38:35</p> <p>4 currently, right? 08:38:38</p> <p>5 A. Well, I have tested -- as I have talked 08:38:40</p> <p>6 about, I have extensively tested stability of the 08:38:43</p> <p>7 findings. If you wanted to know how the damages 08:38:47</p> <p>8 would be -- would be different or that the payment 08:38:52</p> <p>9 amounts, the cost amounts would be different with a 08:38:57</p> <p>10 different number put in, it's almost 08:39:01</p> <p>11 self-explanatory. It's A times B, which could be 08:39:04</p> <p>12 done on the state level, a group of states or at the 08:39:09</p> <p>13 overall level. 08:39:13</p> <p>14 Q. Right. So, you know, you have a cost number 08:39:14</p> <p>15 estimate, at the end of the day, for typical and 08:39:17</p> <p>16 aggregate, right? 08:39:22</p> <p>17 A. I had several, but yes. 08:39:24</p> <p>18 Q. And those, obviously, are based on any 08:39:25</p> <p>19 number of inputs that you use to do your 08:39:29</p> <p>20 calculations, right? 08:39:32</p> <p>21 A. Right. 08:39:33</p> <p>22 Q. And so I guess what I'm getting at is, you 08:39:34</p> <p>23 know, did you take any one of those inputs and test 08:39:39</p> <p>24 the sensitivity of the number you come to at the end 08:39:43</p> <p>25 of the day, how that would change based on changes 08:39:46</p>	<p>1 each addition of data of constituents of the 08:41:32</p> <p>2 analysis record, I didn't at each stage carry it out 08:41:39</p> <p>3 to a final number, but that's -- that's readily 08:41:43</p> <p>4 apparent from the numbers that I used. 08:41:45</p> <p>5 In terms of the number of records, that's 08:41:47</p> <p>6 just multiplication. I calculated what the -- if I 08:41:49</p> <p>7 changed the order of what records were included in 08:41:58</p> <p>8 the calculation and started with the state level, I 08:42:02</p> <p>9 report what each of those would be. That could 08:42:05</p> <p>10 readily be turned into an aggregate calculation, but 08:42:11</p> <p>11 I didn't take that last step of rerunning the 08:42:16</p> <p>12 aggregate exhibits every time, but I have recorded 08:42:21</p> <p>13 that sensitivity extensively through the report. 08:42:24</p> <p>14 Q. Okay. Did you report -- well, strike that. 08:42:27</p> <p>15 Did you do any analysis looking at if more 08:42:31</p> <p>16 than one of your inputs were wrong at the same time, 08:42:36</p> <p>17 how those collectively would affect the final number 08:42:41</p> <p>18 you've come to? 08:42:44</p> <p>19 A. I don't think I understand that question. 08:42:56</p> <p>20 I'm sorry. I'm trying to get it. 08:42:57</p> <p>21 Q. Yeah. So the way I understand, and again, 08:42:59</p> <p>22 I'm not educated in this, but the way I understand a 08:43:04</p> <p>23 sensitivity analysis, is you are looking at how I 08:43:08</p> <p>24 could change one of your inputs, how that might 08:43:12</p> <p>25 affect your final calculation; is that right? 08:43:15</p>
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<p>1 in one or more of those inputs? 08:39:50</p> <p>2 A. And it sounds like the answer is, you did 08:39:54</p> <p>3 not do that; is that right? 08:39:56</p> <p>4 A. No. I did that. I walked you through 08:39:58</p> <p>5 several ways in which I did that extensively. 08:40:01</p> <p>6 Q. And your report, the -- you report this 08:40:04</p> <p>7 sensitivity in terms of a number, how it would 08:40:11</p> <p>8 affect the final number? 08:40:17</p> <p>9 A. I don't remember if I excerpted the numbers, 08:40:19</p> <p>10 but the sensitivity testing is extensively done, and 08:40:23</p> <p>11 it's -- it's readily discernible if one wanted to 08:40:30</p> <p>12 apply the numbers to see what the impact would be on 08:40:38</p> <p>13 aggregate calculations. 08:40:41</p> <p>14 Q. Right. But I'm just trying to say, you 08:40:44</p> <p>15 didn't report the impact on the calculations in your 08:40:48</p> <p>16 report. You are saying that the data is there to do 08:40:51</p> <p>17 that calculation, but you didn't do that? 08:40:55</p> <p>18 A. I didn't take that last step, so some of the 08:41:00</p> <p>19 tabs we've looked at -- let me just call them the 08:41:02</p> <p>20 range analysis. Will you know what I mean? We can 08:41:06</p> <p>21 use that as shorthand. So the range analyses, I 08:41:09</p> <p>22 report how the averages would change with different 08:41:14</p> <p>23 portions that have been used. 08:41:20</p> <p>24 So I -- as far as carrying that forward to 08:41:23</p> <p>25 rerun aggregate calculations with each addition or 08:41:29</p>	<p>1 A. Generally. 08:43:18</p> <p>2 Q. So what I'm asking is, did you do that, but 08:43:19</p> <p>3 changing multiple inputs, you know, looking at if 08:43:21</p> <p>4 there is uncertainty or errors in more than one 08:43:25</p> <p>5 input you used, how that would collectively affect 08:43:28</p> <p>6 the final calculation? Did you do that analysis for 08:43:31</p> <p>7 any inputs? 08:43:36</p> <p>8 A. Inherently, with the inclusion of a record, 08:43:43</p> <p>9 you are picking up differences in parts, labor, and 08:43:46</p> <p>10 possibly the weight of where the repairs occurred. 08:43:59</p> <p>11 So there are three inputs in play in the range 08:44:02</p> <p>12 analyses, so that would be -- that would be one 08:44:05</p> <p>13 example. The order of inclusion of records, I 08:44:12</p> <p>14 guess, would also implicitly pick up changes, 08:44:15</p> <p>15 simultaneous changes to parts, labor, and the weight 08:44:20</p> <p>16 of where the repairs occurred, if that's -- if 08:44:26</p> <p>17 that's meaningful. So those would be -- those would 08:44:30</p> <p>18 be examples of taking into account simultaneous 08:44:35</p> <p>19 factors. 08:44:37</p> <p>20 Q. And you did calculations of what effect that 08:44:38</p> <p>21 would have on the final number you produced? 08:44:42</p> <p>22 A. I think I reported it at the -- at the 08:44:47</p> <p>23 repair cost level, which would be plugged into 08:44:50</p> <p>24 the -- multiplied by the -- whatever aggregate 08:44:53</p> <p>25 number is relevant to the calculation to get the 08:44:58</p>

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<p>1 don't remember if it was Dr. Edgar or Counsel -- 09:27:09</p> <p>2 if -- that that's -- there was an adjustment for 09:27:11</p> <p>3 lessees. 09:27:17</p> <p>4 Q. Okay. You -- so then your model is not -- 09:27:19</p> <p>5 you don't purport to calculate damages for anyone 09:27:28</p> <p>6 whose repairs were covered by warranty; is that 09:27:33</p> <p>7 correct? 09:27:37</p> <p>8 A. As I understand it from Dr. Edgar's tables, 09:27:38</p> <p>9 the pumps under -- the pumps repaired under warranty 09:27:43</p> <p>10 are deducted from the total pump sales, and that's 09:27:47</p> <p>11 the beginning of the calculation for pumps not 09:27:51</p> <p>12 covered under warranty, so I understand those are 09:27:55</p> <p>13 removed upstream of the input figure I received. 09:27:58</p> <p>14 Q. That's helpful, but what I'm asking is, 09:28:05</p> <p>15 slightly different. I'm just asking what are you 09:28:07</p> <p>16 trying to do or not do, and so you are not trying to 09:28:08</p> <p>17 calculate damages for anyone whose repair was 09:28:11</p> <p>18 covered by a warranty, correct? 09:28:13</p> <p>19 A. That's right. 09:28:16</p> <p>20 Q. And so -- well, if that's the case, why did 09:28:17</p> <p>21 you look at warranty data in the first place? 09:28:21</p> <p>22 A. Warranty data are very useful and supportive 09:28:26</p> <p>23 in a sense that they provide a floor for what 09:28:32</p> <p>24 consumers would have paid out of pocket. It's just 09:28:39</p> <p>25 generally the case that customer pay repairs are 09:28:42</p>	<p>1 A. A cross check or benchmark is one of those 09:30:26</p> <p>2 useful purposes. 09:30:29</p> <p>3 Q. Okay. When you come to a typical cost 09:30:31</p> <p>4 estimate of \$9,551 for out-of-pocket costs, you are 09:30:36</p> <p>5 not relying on warranty data to calculate that; is 09:30:43</p> <p>6 that correct? 09:30:48</p> <p>7 Warranty data are part of that study for why 09:30:50</p> <p>8 I considered the \$9,500-or-so to be the most 09:30:52</p> <p>9 representative number, but the warranty data are an 09:30:56</p> <p>10 input only in the sense that repairs that were 09:31:00</p> <p>11 coded, recorded on the same day between warranty and 09:31:04</p> <p>12 customer pay, we excluded those records. So I did 09:31:08</p> <p>13 use warranty records to derive that, but the \$9,500 09:31:14</p> <p>14 itself is calculated on the basis of customer pay 09:31:18</p> <p>15 records alone. 09:31:23</p> <p>16 Q. Okay. The -- you are also not -- to be 09:31:26</p> <p>17 clear, you are not trying to calculate the amount of 09:31:34</p> <p>18 damages in dollars that anyone may have experienced 09:31:39</p> <p>19 for what the Plaintiffs say is overpayment for the 09:31:43</p> <p>20 vehicle; is that correct? 09:31:47</p> <p>21 A. I'm not giving an opinion on overpayment. 09:31:49</p> <p>22 That's correct. 09:31:57</p> <p>23 Q. You do offer the opinion that -- you do 09:32:00</p> <p>24 analyze, I should say, and offer an opinion as to 09:32:08</p> <p>25 how proportionally overpayment damages should be 09:32:13</p>
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<p>1 more expensive than warranty repairs, but 09:28:45</p> <p>2 warranty -- warranty data, by their nature, are 09:28:50</p> <p>3 heavily vetted. There are adversarial inputs and 09:28:54</p> <p>4 mutual interests in the development of those files. 09:28:58</p> <p>5 It is -- they were very useful inputs in 09:29:08</p> <p>6 studying costs associated with what consumers paid 09:29:12</p> <p>7 out of pocket, but as I say, the customer pay 09:29:16</p> <p>8 repairs are more reflective of the conditions under 09:29:21</p> <p>9 which people would have paid for these repairs out 09:29:24</p> <p>10 of their own pockets. 09:29:28</p> <p>11 Q. So then the -- just so I'm understanding, 09:29:30</p> <p>12 the warranty data you looked at, that's so you can 09:29:32</p> <p>13 have a benchmark to compare customer pay repairs; is 09:29:36</p> <p>14 that correct? 09:29:51</p> <p>15 A. In studying the -- I was attempting to 09:29:52</p> <p>16 evaluate the problem through multiple data sources, 09:29:56</p> <p>17 and warranty data are a good source to study this 09:29:59</p> <p>18 problem. So the context -- there is a benchmark to 09:30:03</p> <p>19 compare it to. It's -- warranty data are -- 09:30:07</p> <p>20 although it's going to be systematically lower than 09:30:13</p> <p>21 customer pay costs, it's going to give reliable 09:30:18</p> <p>22 outputs. It's to enhance the reliability of the 09:30:20</p> <p>23 study, and a -- 09:30:23</p> <p>24 Q. When you -- yes, sir. I'm sorry. Are you 09:30:24</p> <p>25 done? 09:30:26</p>	<p>1 allocated among multiple owners of the same vehicle, 09:32:18</p> <p>2 right? 09:32:23</p> <p>3 A. "Should" is not a word that I would use, but 09:32:26</p> <p>4 I propose a method to do that and describe how the 09:32:29</p> <p>5 method would be applied, so I propose a model by 09:32:32</p> <p>6 which one could allocate overpayment damages. 09:32:38</p> <p>7 Q. Okay. But you are not offering the opinion 09:32:41</p> <p>8 that the Court should adopt that model to allocate 09:32:44</p> <p>9 among multiple owners of a vehicle, right? 09:32:48</p> <p>10 A. Like similar answers, I think there are 09:32:53</p> <p>11 things that are in the Court's domain, not mine, 09:32:55</p> <p>12 with regard to eligibility and class certification, 09:32:58</p> <p>13 so that's right. I understand that what I do is a 09:33:04</p> <p>14 mathematical model, how eligibility is determined. 09:33:09</p> <p>15 For that to be applied, is beyond the scope of my 09:33:12</p> <p>16 work. 09:33:15</p> <p>17 Q. Were you instructed by the Plaintiffs' 09:33:15</p> <p>18 lawyers to focus only on out-of-pocket damages, 09:33:19</p> <p>19 calculating out-of-pocket damages, instead of 09:33:25</p> <p>20 calculating overpayment damages? 09:33:28</p> <p>21 A. Sorry. I was sort of waiting for an 09:33:40</p> <p>22 objection. Can you give me the question again. I 09:33:43</p> <p>23 lost it. I'm not saying there should have been an 09:33:45</p> <p>24 objection. 09:33:48</p> <p>25 Q. No. Understood. Understood. 09:33:49</p>

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1	mutually exclusive, but in some cases, that would	09:58:49	1 calculations are classwide, just to make that clear.
2	make sense.	09:58:53	10:01:57
3	Q. Okay. Would -- how would you decide whether	09:58:56	2 Q. So your model is meant to calculate damages
4	a class member should fall under the overpayment	09:59:05	10:01:59
5	model or the out-of-pocket repair model?	09:59:11	3 for someone who never paid out of pocket for repair
6	MR. PATTERSON: Object to form.	09:59:17	10:02:03
7	A. I would not. I think that -- I think that's	09:59:17	4 costs?
8	a legal distinction and one that is in the hands of	09:59:24	10:02:07
9	attorneys and the Court.	09:59:31	5 A. No. I didn't say that.
10	BY MR. PRUITT:	09:59:34	10:02:08
11	Q. Can you explain to me what you mean by it's	09:59:35	6 Q. Okay. So I'm talking about in terms of the
12	a legal decision to determine how to calculate	09:59:43	10:02:13
13	damages using these models?	09:59:49	7 nature of -- the nature of the type of injury that's
14	A. You didn't ask me about calculating damages.	09:59:53	10:02:20
15	You said who should get which one, which is a	09:59:56	8 being alleged, right? You could be a plaintiff that
16	question of eligibility for recovery.	10:00:00	10:02:24
17	Q. Uh-huh. Okay. So then maybe that's	10:00:04	9 falls into this overpayment class, right, or you
18	helpful, so let me reword it a little bit, and then	10:00:10	10:02:30
19	maybe -- because that's what I'm getting at.	10:00:13	10 could have this -- or you could be -- I think they
20	So how would -- how would you go about	10:00:17	10:02:34
21	deciding whether to calculate damages for a	10:00:22	11 call it the failure class, but it's essentially
22	particular class member using either the overpayment	10:00:26	10:02:36
23	model or the out-of-pocket model?	10:00:30	12 out-of-pocket repair costs, right? You can't be
24	MR. PATTERSON: Object to form.	10:00:34	10:02:38
25	A. First of all, I haven't seen the overpayment	10:00:36	13 both? Do we agree on that?
			10:02:42
			14 MR. PATTERSON: Object to form.
			10:02:54
			15 A. I think so, but I don't -- I don't know.
			10:03:01
			16 BY MR. PRUITT:
			10:03:05
			17 Q. Okay. You don't know whether your model
			10:03:06
			18 could or should be used to calculate overpayment
			10:03:08
			19 damages?
			10:03:12
			20 MR. PATTERSON: Object to form.
			10:03:14
			21 A. I didn't intend it to calculate overpayment
			10:03:15
			22 damages.
			10:03:18
			23 BY MR. PRUITT:
			10:03:20
			24 Q. Okay. Did you create your model intending
			10:03:21
			25 for it to -- to calculate only for individuals who
			10:03:25
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1	model. Calculating overpayment is not a part of my	10:00:40	1 experienced out-of-pocket repair costs?
2	assignment, so it's not -- it's not something I'm	10:00:42	10:03:39
3	doing here or that I have attempted to form an	10:00:46	2 A. It's capturing that experiential effect.
4	opinion on. The way that I see it, I guess the	10:00:51	10:03:46
5	distinction is -- I give a tool that could be	10:00:54	3 Q. And it's meant to capture that effect,
6	applied, and because of -- because of my job,	10:00:59	10:03:49
7	because of my role here, I have to scrutinize the	10:01:02	4 right?
8	foundations of that tool, and there is a	10:01:05	10:03:53
9	mathematical and economic application of that. I	10:01:10	5 A. Yes.
10	create numbers.	10:01:13	10:03:53
11	Then there is a second determination of	10:01:14	6 Q. Okay. So if we are trying to figure out
12	eligibility, which is -- whether it is appropriate	10:01:16	10:03:56
13	to apply a model to any given person, and I see that	10:01:20	7 whether someone had that experiential effect, as you
14	as a legal distinction, and that's why I don't have	10:01:24	10:04:01
15	an opinion on it.	10:01:27	8 put it, how would you go about that for -- for that
16	BY MR. PRUITT:	10:01:28	10:04:09
17	Q. Okay. Well, let's -- then let's not think	10:01:29	9 plaintiff -- or class member?
18	about the overpayment model. Let me ask it a little	10:01:31	10:04:15
19	bit differently.	10:01:35	10 MR. PATTERSON: Object to form.
20	So you built this out-of-pocket model that's	10:01:35	10:04:19
21	designed, as you put it, to be a tool to calculate	10:01:40	11 A. If I understand the question right, I don't
22	out-of-pocket repair costs for multiple class	10:01:43	10:04:36
23	members, right?	10:01:48	12 think that's something I have an opinion on.
24	A. It's actually for the class as a whole. It	10:01:50	10:04:38
25	could be applied to class members, but it's -- my	10:01:52	13 BY MR. PRUITT:
			10:04:42
			14 Q. Well, I'm asking you, so imagine -- let me
			10:04:42
			15 say it a little bit differently. Imagine the Court
			10:04:47
			16 adopts these -- both of these models. I'm trying to
			10:04:50
			17 get at how do you -- how do you figure out which
			10:04:55
			18 model applies to a particular person and what the
			10:04:57
			19 process is for going through that to figure out, do
			10:05:00
			20 they go in the overpayment bucket, or do they go in
			10:05:04
			21 the out-of-pocket bucket? So do you understand
			10:05:06
			22 that?
			10:05:10
			23 MR. PATTERSON: Object to the question.
			10:05:13
			24 A. Yes. And I'm trying to help, but all I can
			10:05:16
			25 really do is speak for myself, the model and the
			10:05:21

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<p>1 Q. Yeah. Did you know anything firsthand about 12:54:30</p> <p>2 what they were talking about in the testimony you 12:54:33</p> <p>3 reviewed? 12:54:36</p> <p>4 A. I don't think so. 12:54:37</p> <p>5 Q. Did you review any testimony by any 12:54:45</p> <p>6 plaintiffs in this case? Deposition testimony? 12:54:47</p> <p>7 A. I don't think so. If I did, it would have 12:54:49</p> <p>8 been on my list of documents. 12:54:51</p> <p>9 Q. Did you ask the Plaintiffs' Counsel at any 12:54:58</p> <p>10 time to provide you with records of actual GM 12:55:03</p> <p>11 repairs associated with CP4 replacements in the 12:55:13</p> <p>12 class vehicles? 12:55:17</p> <p>13 A. Early on we talked about that, and yes. I 12:55:19</p> <p>14 think I -- I think we did talk about that early 12:55:33</p> <p>15 on. 12:55:36</p> <p>16 Q. And but, ultimately, what happened? You 12:55:40</p> <p>17 didn't get them? 12:55:43</p> <p>18 A. The -- the agreement between the Parties 12:55:45</p> <p>19 gave a much better standardized format, which was 12:55:50</p> <p>20 the customer pay file, and the attempts to get 12:55:54</p> <p>21 records of repairs. I understand there were two 12:56:05</p> <p>22 contemplated, one being dealerships, the other being 12:56:08</p> <p>23 from GM dealerships, which was superseded by 12:56:11</p> <p>24 agreement between the parties, and then they -- 12:56:17</p> <p>25 they gave me what they had from the named 12:56:20</p>	<p>1 Q. Okay. It's the best source of data that you 12:58:52</p> <p>2 had available for what you were trying to do, 12:58:54</p> <p>3 right? 12:58:57</p> <p>4 A. When you add in that last clause, yes. 12:58:58</p> <p>5 Q. And the \$9,551 typical figure that you came 12:59:04</p> <p>6 to was a calculation that relied on data from the 12:59:09</p> <p>7 customer pay data set; is that correct? 12:59:16</p> <p>8 A. Correct. 12:59:18</p> <p>9 Q. And by extension, your \$187 million estimate 12:59:22</p> <p>10 also comes from the customer pay data set plus the 12:59:30</p> <p>11 additional input that you got from Dr. Edgar about 12:59:35</p> <p>12 the total number; is that right? 12:59:37</p> <p>13 A. Correct. 12:59:40</p> <p>14 Q. If you look at page Tab D2, page 4 -- and, 12:59:41</p> <p>15 actually, would now be a good time for a quick 12:59:50</p> <p>16 break? 12:59:55</p> <p>17 MR. PATTERSON: Yes. It would. 12:59:56</p> <p>18 MR. PRUITT: Do you want to do five? 12:59:57</p> <p>19 MR. PATTERSON: Five is fine for me. 12:59:59</p> <p>20 MR. PRUITT: Okay. We can go off the 13:00:02</p> <p>21 record. 13:00:02</p> <p>22 THE VIDEOGRAPHER: We are going off the 13:00:05</p> <p>23 record at 1:00 p.m. 13:00:06</p> <p>24 (Recess taken.) 13:00:09</p> <p>25 THE VIDEOGRAPHER: We are going back on the 13:06:02</p>
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<p>1 plaintiffs. 12:56:23</p> <p>2 Q. So back to your report, paragraph 23, you 12:56:25</p> <p>3 mentioned the customer pay data set. That's one of 12:56:57</p> <p>4 the data sources you relied on for your work; is 12:57:03</p> <p>5 that right? 12:57:07</p> <p>6 A. Yes. 12:57:07</p> <p>7 Q. And you provide an overview in paragraph 23 12:57:07</p> <p>8 of all the data sets that you relied on; is that 12:57:13</p> <p>9 fair? 12:57:32</p> <p>10 A. Yes. 12:57:32</p> <p>11 Q. Tell me at a high level what the customer 12:57:46</p> <p>12 pay data set is. 12:57:50</p> <p>13 A. At a high level, it is records responsive to 12:57:52</p> <p>14 a request for service encounters where customers 12:57:56</p> <p>15 paid out of pocket for CP4 repairs from GM dealers 12:58:03</p> <p>16 in approximately 41 states, I think. 12:58:10</p> <p>17 Q. In your view, is the customer pay data set 12:58:14</p> <p>18 the most reliable data set of the ones you looked at 12:58:21</p> <p>19 for estimating typical out-of-pocket repair costs, 12:58:26</p> <p>20 as you put it? 12:58:32</p> <p>21 A. It's the most aligned with what I'm 12:58:35</p> <p>22 intending to measure. I don't consider it a more 12:58:37</p> <p>23 reliable data set, but it's context versus a 12:58:39</p> <p>24 warranty data set is -- it's closer and in context 12:58:43</p> <p>25 to what I'm attempting to measure. 12:58:48</p>	<p>1 record at 1:06 p.m. 13:06:03</p> <p>2 BY MR. PRUITT: 13:06:07</p> <p>3 Q. Over the break, did you talk to anybody 13:06:07</p> <p>4 about your testimony? 13:06:09</p> <p>5 A. No. 13:06:10</p> <p>6 Q. All right. Right before we broke, I was 13:06:13</p> <p>7 directing you to Tab B2, page 4. Let me know when 13:06:17</p> <p>8 you are there. 13:06:22</p> <p>9 A. Okay. I'm there. 13:06:23</p> <p>10 Q. And we were talking about the customer pay 13:06:24</p> <p>11 data set. Do you recall that? 13:06:29</p> <p>12 A. Yes. 13:06:31</p> <p>13 Q. What you have here, as I understand it, is 13:06:34</p> <p>14 an extract from the customer pay data set; is that 13:06:38</p> <p>15 right? 13:06:42</p> <p>16 A. That's right. 13:06:42</p> <p>17 Q. And, to be clear, customer pay, as you use 13:06:43</p> <p>18 it, refers to a non-warranty-covered repair; is that 13:06:47</p> <p>19 correct? 13:06:53</p> <p>20 A. Yes. 13:06:53</p> <p>21 Q. And so the customer pay data -- data set 13:06:57</p> <p>22 does not include information about warranty 13:07:03</p> <p>23 coverage; is that correct? 13:07:08</p> <p>24 A. Generally -- generally, that's the case. 13:07:25</p> <p>25 Sometimes there are notes saying we did this part 13:07:32</p>

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1	13:14:07	1	A. No. It's a bit different. I assume that 13:18:31
2	BY MR. PRUITT: 13:14:07	2	the repairs that -- the universe of repairs that I 13:18:35
3	Q. It doesn't have a row, for instance, for 13:14:07	3	got was primarily made up and filtered down to from 13:18:38
4	diagnostic codes or anything like that, right? 13:14:11	4	CP4 failures where there is a kit or pre-kit 13:18:43
5	A. I don't think it does. I think I mentioned 13:14:23	5	equivalent, which is the repair. 13:18:51
6	that. 13:14:24	6	Q. Okay. But I'm -- what I'm asking is, did 13:18:56
7	Q. And, of course, the customer pay data set 13:14:27	7	you assume, whether you were told to or not, just 13:18:59
8	isn't going to give you any information about how a 13:14:32	8	for purposes of doing your analysis and calculating 13:19:03
9	vehicle was used or misused by a plaintiff, 13:14:35	9	damages, that each of those CP4 repair kits or 13:19:07
10	correct? 13:14:41	10	repairs was because of the Plaintiffs' theory of 13:19:13
11	A. It would not. 13:14:41	11	what was -- what's wrong with the CP4 pump? 13:19:17
12	Q. And it doesn't tell you anything about 13:14:45	12	A. No. I did not. 13:19:35
13	whether there was misfueling for a particular 13:14:57	13	Q. Well, is that not part of your analysis, 13:19:39
14	vehicle, correct? 13:15:03	14	then? 13:19:41
15	A. The file that I have does not. That's 13:15:05	15	A. No. We filtered out all kinds of repairs 13:19:43
16	correct. 13:15:11	16	that look like they have -- were were different, 13:19:49
17	Q. Did you, in calculating your -- in doing 13:15:18	17	that they were different repairs, didn't have causal 13:19:53
18	your calculations from the customer pay data set, 13:15:25	18	parts. So I don't remember the exact number that we 13:19:59
19	were you instructed to assume that these repairs 13:15:29	19	filtered out, but it was tens of thousands of 13:20:03
20	were because of the Plaintiffs' theory of defective 13:15:38	20	records that we filtered out because the repair was 13:20:07
21	CP4? 13:15:45	21	not relevant, so I guess -- 13:20:10
22	A. Well, first of all, the repair itself that 13:16:18	22	Q. Yeah. I'm sorry. Let me ask it a little 13:20:13
23	I'm looking for is the kits or the pre-kit 13:16:22	23	bit differently. The set of data from the customer, 13:20:16
24	equivalent. I don't know of a reason why that would 13:16:28	24	the subset of data from the customer pay data set 13:20:21
25	differ, but I used all the records in the -- at 13:16:33	25	that you ultimately rely on to do your calculations, 13:20:25
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1	least -- I think it comes in more in terms of the 13:16:38	1	did you assume that each of those repairs was 13:20:31
2	the aggregate costs. It could certainly apply if 13:16:42	2	because of a CP4 pump failure under the Plaintiffs' 13:20:35
3	there there were different aggregate number -- but 13:16:45	3	theory of defect? 13:20:41
4	again, I assume I'm being asked to calculate 13:16:49	4	A. Not rigidly. I assumed that the -- the 13:20:52
5	out-of-pocket costs because Plaintiffs are going to 13:16:55	5	repairs that I used were reflective of what would 13:20:57
6	present a liability theory that seeks to recover 13:16:56	6	have needed to be done if it were a repair under the 13:21:01
7	them. I don't remember if that's a specific 13:17:00	7	Plaintiffs' theory. Sorry. I got to the same place 13:21:07
8	instruction. No. 13:17:03	8	in maybe a different way. 13:21:15
9	Q. Okay. So just to be clear, you don't recall 13:17:04	9	Q. Okay. But, of course, you didn't actually 13:21:17
10	being instructed to assume that each of the repairs 13:17:06	10	go in and investigate to verify that in the real 13:21:22
11	involving a CP4 kit or pre-kit equivalent reflected 13:17:12	11	world each of these repairs was, in fact, a CP4 13:21:28
12	a CP4 failure under the Plaintiffs' theory; is that 13:17:19	12	failure, because of the specific theory that 13:21:34
13	correct? 13:17:41	13	Plaintiffs proposed; is that correct? 13:21:38
14	A. I don't think I was told to assume that 13:17:42	14	A. That's correct. 13:21:41
15	the -- in terms of the amount of the repair out of 13:17:46	15	Q. And you -- likewise, you didn't go out and 13:21:42
16	the customer pay file, that is going for the per 13:17:53	16	investigate in any way how many repairs in the 13:21:47
17	unit amount, and that's what I have calculated. 13:17:56	17	customer pay data set were because of factors that 13:21:53
18	There is a fair amount of filtering that gets down 13:18:01	18	were unrelated to a bad pump, whether that's 13:21:58
19	to that. I don't recall that -- that instruction, 13:18:05	19	misfueling or contamination or something like that? 13:22:02
20	but I don't know that it would make a difference. 13:18:09	20	You didn't do that analysis, correct? 13:22:06
21	Q. Okay. So regardless whether or not you were 13:18:16	21	MR. PATTERSON: Object to form. 13:22:10
22	instructed, did you assume, in looking at each 13:18:19	22	A. I think you meant to incorporate something 13:22:12
23	record and the customer pay data set, that it 13:18:22	23	you said earlier that we were just talking about the 13:22:14
24	reflected a CP4 failure according to the Plaintiffs' 13:18:26	24	records. We did a lot of work to get rid of what 13:22:16
25	theory? 13:18:30	25	looked like irrelevant repairs. Among those I used, 13:22:20

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<p>1 file on the same day, we excluded those from -- from 13:42:56</p> <p>2 calculation, so that's one possibility, and those 13:43:01</p> <p>3 would be out. 13:43:05</p> <p>4 The other possibility is some of the less 13:43:07</p> <p>5 common warranty categories or categories where the 13:43:10</p> <p>6 customer doesn't pay, which would include what's 13:43:14</p> <p>7 maybe called policy work, and those should be 13:43:17</p> <p>8 captured in the warranty file. So we did account 13:43:19</p> <p>9 for that in those two ways. 13:43:22</p> <p>10 Q. Okay. But setting aside the warranty file, 13:43:25</p> <p>11 did you, for any of the examples of transactions in 13:43:28</p> <p>12 the customer pay database that showed zero dollars 13:43:33</p> <p>13 for cost of repairs, did you investigate whether any 13:43:37</p> <p>14 of those actually were fixes for free by GM? 13:43:42</p> <p>15 A. So the thing is, if those are fixes for free 13:43:50</p> <p>16 by GM, that's going to mean that GM is compensating 13:44:01</p> <p>17 the dealer, and if GM is compensating the dealer, 13:44:06</p> <p>18 those are going to be into the warranty file, so 13:44:10</p> <p>19 what I'm telling you is that the process that we use 13:44:13</p> <p>20 should -- should identify those records if they 13:44:19</p> <p>21 occurred. 13:44:23</p> <p>22 Q. So, but again, I'm not asking about the 13:44:25</p> <p>23 process. I just want to know, did you actually take 13:44:27</p> <p>24 any of these repair records and investigate 13:44:30</p> <p>25 specifically whether it was a fix for free? 13:44:34</p>	<p>1 of pocket to the customer was zero dollars, it would 13:46:15</p> <p>2 be an error for you to exclude that from your 13:46:19</p> <p>3 calculation of typical out-of-pocket damages, 13:46:24</p> <p>4 correct? 13:46:29</p> <p>5 MR. PATTERSON: Object to form. 13:46:31</p> <p>6 A. I can't forget about the warranty file, 13:46:33</p> <p>7 because if something is zero dollars, it's either 13:46:36</p> <p>8 charity from the dealer, or the dealer is being 13:46:41</p> <p>9 reimbursed. If the dealer is being reimbursed, then 13:46:44</p> <p>10 that record is showing up elsewhere. It may be 13:46:48</p> <p>11 recorded, but it's -- it's captured in another file. 13:46:53</p> <p>12 It's counted as a warranty encounter, so no. It 13:46:59</p> <p>13 would not be inappropriate to exclude it. It would 13:47:03</p> <p>14 be inappropriate to include it in a calculation of 13:47:08</p> <p>15 the average. 13:47:12</p> <p>16 BY MR. PRUITT: 13:47:12</p> <p>17 Q. So you would -- in that event, you would 13:47:12</p> <p>18 stand by removing that data point from the database 13:47:14</p> <p>19 to do your calculations, if I'm understanding you 13:47:18</p> <p>20 correctly? 13:47:21</p> <p>21 A. Yes. If there is a repair that is in the 13:47:23</p> <p>22 customer pay data file, and is -- but it is actually 13:47:26</p> <p>23 paid by GM, and GM reimburses the dealer, then that 13:47:31</p> <p>24 is not an out-of-pocket repair. And if it's in a 13:47:38</p> <p>25 warranty file, presumably, it is being picked up in 13:47:45</p>
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<p>1 A. That assumes that our objective process 13:44:41</p> <p>2 didn't do that. We did our objective process, which 13:44:44</p> <p>3 would -- which would capture those instances. If 13:44:46</p> <p>4 there were other instances not captured by the 13:44:53</p> <p>5 process we use, in other words, already being 13:44:56</p> <p>6 reflected in the GM data and the customer pay data 13:44:59</p> <p>7 on the same day, which we did exclude, we did not go 13:45:03</p> <p>8 beyond that to -- and there were not notes that 13:45:08</p> <p>9 would advise us of that. 13:45:12</p> <p>10 Q. If the zero dollar values that you took out 13:45:16</p> <p>11 actually were fixes for free, it would be wrong for 13:45:20</p> <p>12 your calculations to exclude those, correct? 13:45:26</p> <p>13 MR. PATTERSON: Object to form. 13:45:33</p> <p>14 A. It may well have been captured in the 13:45:34</p> <p>15 warranty file. I don't know who is paying for these 13:45:36</p> <p>16 fixes for free, but if GM is paying for them, the 13:45:40</p> <p>17 warranty file has categories for -- for other 13:45:45</p> <p>18 encounters where the dealer is reimbursed and the 13:45:51</p> <p>19 customer is not the payer, so no. It would not 13:45:57</p> <p>20 necessarily be wrong. 13:46:00</p> <p>21 BY MR. PRUITT: 13:46:01</p> <p>22 Q. If -- I just want to be clear. You keep 13:46:01</p> <p>23 talking about the warranty file. Forget about the 13:46:05</p> <p>24 warranty file for purposes of my question. If, in 13:46:08</p> <p>25 the customer pay environment, the amount charged out 13:46:11</p>	<p>1 the account of repairs covered under warranty, so 13:47:46</p> <p>2 yes. I would -- in that circumstance, I would stand 13:47:50</p> <p>3 behind that decision. 13:47:52</p> <p>4 Q. The scenario you just described, did you do 13:47:53</p> <p>5 that for a single transaction in your analysis of 13:47:55</p> <p>6 the customer pay data set? 13:48:01</p> <p>7 A. We removed transactions that were in both 13:48:05</p> <p>8 the warranty file and the customer pay file on the 13:48:08</p> <p>9 same day. I don't remember how many there were of 13:48:11</p> <p>10 those, but I think there were quite a few. 13:48:14</p> <p>11 Q. Okay. You also removed, as I understand it, 13:48:17</p> <p>12 negative cost repairs; is that right? 13:48:24</p> <p>13 A. Yes. 13:48:26</p> <p>14 Q. Do you know how many there were? 13:48:28</p> <p>15 A. I don't. 13:48:31</p> <p>16 Q. Do you know one way or another whether any 13:48:33</p> <p>17 customers actually received credits for repairs at 13:48:38</p> <p>18 GM dealerships? 13:48:43</p> <p>19 A. As far as an encounter leading to a negative 13:49:06</p> <p>20 repair cost, that doesn't sound very plausible. 13:49:10</p> <p>21 Whether there was a credit prior to the calculation 13:49:15</p> <p>22 of the amount that we used, I'm sure there were. I 13:49:19</p> <p>23 don't remember any specifically. 13:49:28</p> <p>24 Q. What, if anything, did you do to investigate 13:49:29</p> <p>25 whether that was possible for any of the repairs in 13:49:32</p>

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1	1 and 8 on Tab 4, page 1? 14:05:56	1	be different from each other, there is a fair amount 14:12:01
2	A. One, two, three, four -- yeah, one, two, 14:06:23	2	of variability, which you would expect, but the 14:12:01
3	three, four, five, six to the right class vehicles, 14:06:24	3	relevant variability is the sensitivity or the 14:12:01
4	the relevant parts on a Class 8 not in the warranty 14:07:13	4	stability of the average of the measures of central 14:12:01
5	file on the same day, class time period. So one 14:07:19	5	tendency on a classwide basis, and that's extremely 14:12:01
6	through six are done, and then you get to the blue. 14:07:23	6	stable. 14:12:01
7	Q. Okay. So then after Steps 1 through 6, what 14:07:28	7	Q. And is there a way to -- in looking at, 14:12:01
8	you have remaining would be the red plus green dots; 14:07:34	8	let's say, the red and the green together, is there 14:12:01
9	is that right? 14:07:42	9	a way to quantify the variability and the data 14:12:01
10	A. Yes. 14:07:44	10	points that are reflected on this chart? 14:12:01
11	Q. And then, at what step do you get -- do you 14:07:46	11	A. In terms of the variability that is relevant 14:12:01
12	shrink from the red to the green? 14:07:56	12	to what I'm doing, I haven't done that, and that's 14:12:01
13	A. That's Number 10. 14:07:59	13	in my report. 14:12:02
14	Q. So once you go through all of it, the data 14:08:01	14	Q. Okay. Not -- I'm not sure what variability 14:12:03
15	cleansing steps, you end up with just the green 14:08:03	15	is relevant, I'm saying just looking at the data, 14:12:10
16	strip; is that fair? 14:08:06	16	if -- if you had to quantify how much variability 14:12:13
17	A. Yes. 14:08:07	17	existed whenever you look at all the red and green 14:12:17
18	Q. And to come to your damages calculations, at 14:08:09	18	dots, is there a way to do that? 14:12:21
19	the end of the day, you removed all of the red data 14:08:16	19	A. I don't know why -- I don't know why I 14:12:29
20	points and all of the blue data points; is that 14:08:21	20	would. It's -- what's interesting is the impact of 14:12:32
21	correct? 14:08:24	21	the variability within the red and green dots, and 14:12:38
22	A. Yes. It turns out it doesn't even really 14:08:25	22	there essentially isn't any impact of the 14:12:43
23	give you a different number from removing red, but 14:08:26	23	variability of the red and green dots. So that's 14:12:46
24	to get to the unexact number, you would remove red 14:08:29	24	what's -- that's what's relevant to my findings. So 14:12:49
25	and blue. 14:08:35	25	I have done the analysis of variability, and that 14:12:54
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1	Q. Of all of the red data points and blue data 14:08:45	1	does take into account all of the red and green 14:13:00
2	points that you excluded, how many of those were you 14:08:51	2	dots. 14:13:04
3	able to look at the underlying repair records from 14:08:54	3	Q. When you say you have done the analysis of 14:13:05
4	the GM dealership for that specific transaction? 14:09:01	4	variability, you quantify the variability that 14:13:08
5	A. Well, the -- the red -- we exclude it in the 14:09:03	5	includes green and red? 14:13:10
6	final numbers, but we also run the numbers with the 14:09:03	6	A. Yes. 14:13:12
7	red, and they don't change. So, as far as the blue, 14:09:03	7	Q. Where is that in your report? 14:13:13
8	we don't have the raw data, but you can see that 14:09:03	8	A. That's the -- that's the range analysis and 14:13:15
9	the -- in -- in some of these, like cause part 14:09:03	9	then, also, the one that changes the order of the -- 14:13:21
10	number, et cetera, we are getting those from the GM 14:09:03	10	of this data, how I calculate the state averages. 14:13:25
11	records, but we don't have -- I don't think we have 14:09:40	11	Q. Okay. Can you point me to both of those. 14:13:29
12	any raw records. 14:09:43	12	A. 10-1, I think, is the first one you are 14:14:21
13	Q. For the red or the blue, right? 14:09:43	13	interested in. 14:14:24
14	A. I don't think -- that's right. 14:09:43	14	Q. Okay. Is it your opinion that 10-1 14:14:24
15	Q. So we talked about variability that is not a 14:10:20	15	illustrates the variability in the data that is on 14:14:24
16	uniform price that's paid for CP4 repairs, right? 14:10:20	16	Tab 6, page 1, the red and blue -- the red and green 14:14:24
17	A. It's not uniform. That's correct. 14:10:20	17	dots? 14:14:24
18	Q. Looking at Tab 6, page 1 of your report, how 14:10:20	18	A. It illustrates the impact of variability, 14:14:24
19	much variability do you see in the data? 14:10:25	19	which is what is relevant. Yes. Yes. I think it 14:14:24
20	A. For a -- I don't really know how to answer 14:10:32	20	does reflect the variability, but more importantly 14:14:24
21	that, but for my purposes, whether there is a 14:10:37	21	the impact. 14:14:24
22	typical cost and whether that typical cost is stable 14:10:40	22	Q. And what's the other one that you pointed me 14:14:24
23	with respect to which records I include in the data, 14:12:01	23	to? 14:14:26
24	there's almost none. 14:12:01	24	A. This is the Tab 20. 14:14:43
25	In terms of whether individual records can 14:12:01	25	Q. Uh-huh. This changes the order of the way 14:14:45

1 STATE OF ARIZONA)
) ss

2 COUNTY OF MARICOPA)

3 BE IT KNOWN that the foregoing deposition
 4 was taken by me, VICKI L. O'CEALLAIGH CHAMPION, CR
 5 No. 50534, a Certified Reporter for the State of
 6 Arizona; that prior to being examined, the witness
 7 named was duly sworn to testify to the whole truth;
 8 that the questions propounded and the answers of the
 9 witness thereto were taken down by me and thereafter
 10 reduced to computerized transcription under my
 11 direction and supervision; that the foregoing is a
 12 true and correct transcript of all proceedings had
 13 upon the taking of said deposition, all done to the
 14 best of my skill and ability.

15 I further certify that I am in no way
 16 related to any party to said action nor in any way
 17 interested in the outcome thereof.

18 I CERTIFY that I have complied with the
 19 ethical obligations set forth in ACJA 7-206(F)(3)
 20 and ACJA 7-206 J(1)(g)(1) and (2).

21 DATED at Phoenix, Arizona, this 29th day of
 22 April, 2022.

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 VICKI L. O'CEALLAIGH CHAMPION

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CR No. 50534